What is claimed is:

1. A home network system, comprising:

at least one new device newly connected to a master device through a
5   network, for transmitting a plugged-in request message containing an initial
address through the network, receiving an address change request message
containing a logical address, and changing the initial address to the logical
address; and

at least one master device connected to the new device through the
10   network, for receiving the plugged-in request message from the new device, setting
the logical address for the new device, and transmitting the address change
request message containing the logical address to the new device.

2. The system of claim 1, wherein the master device receives and stores
15   product information of the new device.

3. The system of claim 1, wherein the master device sets an area code of
the new device.

20   4. The system of claim 1 or 3, wherein the master device sets option values.

5. The system of claim 4, wherein the options comprise an alive notification
period.

25   6. The system of claim 1, wherein the master device updates a home
network list by registering the new device.

7. The system of claim 6, wherein the master device displays the updated home network list through a display.

5   8. The system of claim 1, wherein the new device transmits an address change ACK response message to the master device.

9. The system of claim 1, wherein the initial address comprises at least a product code and a logical address of the new device, and the new device changes

10   the logical address to the logical address set by the master device.

10. The system of claim 9, wherein the master device decides whether the logical address contained in the initial address of the new device is an initial logical address before setting the logical address, and sets the logical address when the

15   logical address of the new device is identical to the initial logical address.

11. The system of claim 1 or 10, wherein, when the master device receives a plurality of plugged-in request messages within a predetermined time, the master device decides whether the plugged-in request messages are inputted from the

20   same product devices before setting the logical address, transmits join request messages containing temporary logical address ranges to the new devices when the messages are inputted from the same product devices, or transmits the join request messages containing the temporary logical address ranges respectively to the same product devices when the messages are inputted from different kinds of

25   devices.

12. The system of claim 11, wherein the new device sets an arbitrary value as a temporary logical address within the temporary logical address range, changes the logical address to the temporary logical address, and transmits a join ACK response message containing the temporary logical address to the master

5   device.

13. The system of claim 12, wherein the address change request message which the master device transmits to the new device comprises the temporary logical address and the logical address set by the master device.

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14. The system of claim 12, wherein the master device decides whether the temporary logical addresses contained in the join ACK response messages are identical, re-transmits join request messages containing new temporary logical address ranges to the new devices transmitting the same temporary logical

15   addresses, and transmits address change request messages containing new logical addresses to the other new devices.

15. The system of claim 14, wherein the new temporary logical addresses are not identical to the new logical addresses set in the other new devices.

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16. The system of claim 7, wherein the master device further comprises a volatile memory for storing the temporary logical addresses.

17. A configuration method of a home network system including at least one

25   master device and new device, comprising the steps of:

transmitting, at the new device, a plugged-in request message containing

an initial address of the new device to the master device;

setting, at the master device, a logical address for the new device;

transmitting, at the master device, an address change request message containing the logical address to the new device; and

5   changing, at the new device, the initial address to the logical address.

18. The method of claim 17, further comprising a step for receiving and storing, at the master device, product information of the new device.

10   19. The method of claim 17, further comprising a step for setting, at the master device, an area code of the new device.

20. The method of claim 17 or 19, further comprising a step for setting option values.

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21. The method of claim 20, wherein the options comprise an alive notification period.

22. The method of claim 17, further comprising a step for updating, at the

20   master device, a home network list by registering the new device.

23. The method of claim 22, further comprising a step for displaying the updated home network list through a display.

25   24. The method of claim 17, further comprising a step for transmitting, at the new device, an address change ACK response message to the master device.

25. The method of claim 17, wherein the initial address comprises at least a

product code and a logical address of the new device, and the new device changes

the logical address to the logical address set by the master device in the change

5   step.

26. The method of claim 25, further comprising a step for deciding, at the

master device, whether the logical address contained in the initial address of the

new device is an initial logical address before the step for setting the logical

10   address, and performing the succeeding procedure of the setting step when the

logical address of the new device is identical to the initial logical address.

27. The method of claim 17 or 26, further comprising the steps of:

when the master device receives a plurality of plugged-in request

15   messages within a predetermined time, deciding, at the master device, whether the

plugged-in request messages are inputted from the same product devices before

the step for setting the logical address;

when the messages are inputted from the same product devices,

transmitting, at the master device, join request messages containing temporary

20   logical address ranges to the new devices; or

when the messages are inputted from different kinds of devices,

transmitting, at the master device, the join request messages containing the

temporary logical address ranges respectively to the same product devices.

25   28. The method of claim 27, further comprising the steps of:

setting, at the new device, an arbitrary value as a temporary logical address

within the temporary logical address range;

changing, at the new device, the logical address to the temporary logical address; and

transmitting, at the new device, a join ACK response message containing

5   the temporary logical address to the master device.

29. The method of claim 28, wherein the address change request message which the master device transmits to the new device comprises the temporary logical address and the logical address set by the master device.

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30. The method of claim 28, further comprising the steps of:

deciding, at the master device, whether the temporary logical addresses contained in the join ACK response messages are identical;

re-transmitting, at the master device, join request messages containing new

15   temporary logical address ranges to the new devices transmitting the same temporary logical addresses; and

transmitting, at the master device, address change request messages containing new logical addresses to the other new devices.

20   31. The method of claim 30, wherein the new temporary logical addresses are not identical to the new logical addresses set in the other new devices.

32. A configuration apparatus for configuring a new device in a home network system, comprising:

25   an interface means connected to the home network system through a network;

a memory for storing an initial address; and

a control means for transmitting a plugged-in request message containing the initial address through the interface means when the interface means is connected to the home network system, receiving an address change request message from the home network system, changing the initial address to a logical address set by the home network system and contained in the address change request message, and storing the logical address in the memory.

33. The apparatus of claim 32, wherein the initial address comprises at least a product code and an initial logical address of the new device.

34. The apparatus of claim 33, wherein the control means changes the initial logical address to the logical address set by the home network system.

35. The apparatus of claim 32 or 33, wherein, when the control means transmits the plugged-in request message and receives a join request message containing an initial address and a temporary logical address range of the new device from the home network system, the control means selects an arbitrary value as a temporary logical address within the temporary logical address range, changes the initial logical address of the initial address to the temporary logical address, stores the changed address, and transmits a join ACK response message containing the temporary logical address to the home network system through the interface means.

36. The apparatus of claim 35, wherein the address change request message comprises the initial address and temporary logical address of the new

device, and the logical address set by the home network system.

37. The apparatus of claim 35, further comprising a volatile memory for storing the temporary logical address.

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38. The apparatus of claim 35, wherein the control means changes the temporary logical address of the initial address to the logical address set by the home network system.

10   39. The apparatus of claim 32, wherein the control means transmits product information of the new device previously stored in the memory to the home network system.

40. A configuration method for configuring a new device in a home network

15   system, comprising the steps of:

transmitting, at a new device, a plugged-in request message containing an initial address of the new device to the home network system;

receiving an address change request message from the home network system; and

20   changing the initial address to a logical address contained in the address change request message.

41. The method of claim 40, further comprising a step for transmitting an address change ACK response message to the home network system after the

25   change step.

42. The method of claim 40, wherein the initial address comprises a product code and an initial logical address of the new device.

43. The method of claim 42, wherein the change step changes the initial

5   logical address to a logical address set by the home network system.

44. The method of claim 43, further comprising the steps of:

deciding whether a join request message containing the initial address and the temporary logical address range is inputted from the home network system

10   after transmitting the plugged-in request message;

selecting an arbitrary value as a temporary logical address within the temporary logical address range according to the decision result;

changing the initial logical address to the temporary logical address, and storing the changed address; and

15   transmitting a join ACK response message containing the temporary logical address to the home network system.

45. The method of claim 44, wherein the address change request message comprises the temporary logical address and the logical address set by the home

20   network system, and the temporary logical address of the initial address of the new device is changed according to the logical address contained in the address change request message.

46. A program storage medium for storing a computer-readable program

25   which is provided to a new device configured in a home network system and which comprises the steps of:

transmitting, at a new device, a plugged-in request message containing an

initial address of the new device to the home network system;

receiving an address change request message from the home network

system; and

5   changing the initial address to a logical address contained in the address

change request message.

47. The medium of claim 46, wherein the program further comprises a step

for transmitting an address change ACK response message to the home network

10   system after the change step.

48. The medium of claim 40, wherein the initial address comprises a

product code and an initial logical address of the new device.

15   49. The medium of claim 48, wherein the change step changes the initial

logical address to a logical address set by the home network system.

50. The medium of claim 49, wherein the program further comprises the

steps of:

20   deciding whether a join request message containing the initial address and

the temporary logical address range is inputted from the home network system

after transmitting the plugged-in request message;

selecting an arbitrary value as a temporary logical address within the

temporary logical address range according to the decision result;

25   changing the initial logical address to the temporary logical address and

storing the changed address; and

transmitting a join ACK response message containing the temporary logical

address to the home network system.

51. The medium of claim 50, wherein the address change request message

5   comprises the temporary logical address and the logical address set by the home

network system, and the temporary logical address of the initial address is

changed according to the logical address contained in the address change request

message.

10   52. A configuration apparatus for configuring a new device in a home

network system, comprising:

an interface means connected to the home network system through a

network;

a memory for storing logical addresses within a predetermined range; and

15   a control means for receiving a plugged-in request message from the new

device through the interface means, reading the logical address from the memory,

setting a logical address for the new device, and transmitting an address change

request message containing the logical address to the new device.

20   53. The apparatus of claim 52, wherein the control means updates a home

network list stored in the memory by registering the new device.

54. The apparatus of claim 53, wherein the control means updates the

home network list after receiving an address change ACK response message from

25   the new device.

55. The apparatus of claim 52, wherein the plugged-in request message comprises a product code and a logical address of the new device.

56. The apparatus of claim 55, wherein the control means receives the

5   plugged-in request message, decides whether the logical address contained in the plugged-in request message is an initial logical address, and sets a logical address for the new device when the logical address is identical to the initial logical address.

57. The apparatus of claim 52 or 55, wherein, when the control means

10   receives a plurality of plugged-in request messages within a predetermined time, the control means decides whether the messages are inputted from the same products, transmits join request messages containing the initial addresses and temporary logical address ranges of the logical addresses according to the product codes previously stored in the memory to the new devices when the messages are

15   inputted from the same products, and receives join ACK response messages from the new devices, or transmits the join request messages containing the initial addresses and temporary logical address ranges of the logical addresses according to the product codes previously stored in the memory respectively to the same product devices when the messages are inputted from different kinds of

20   devices, and receives the join ACK response messages from the same product devices.

58. The apparatus of claim 57, wherein the join ACK response message comprises a temporary logical address having an arbitrary value within the

25   temporary logical address range selected by the new device.

59. The apparatus of claim 58, wherein the address change request message comprises the temporary logical address and the set logical address.

60. The apparatus of claim 58, wherein the control means decides whether
5   the temporary logical addresses contained in the join ACK response messages are identical, re-transmits join request messages containing new temporary logical address ranges to the new devices transmitting the same temporary logical addresses, and transmits address change request messages containing new logical addresses to the other new devices.
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61. The apparatus of claim 60, wherein the new temporary logical addresses are not identical to the new logical addresses set in the other new devices.

15   62. The apparatus of claim 58, further comprising a volatile memory for storing the temporary logical addresses.

63. The apparatus of claim 52, wherein the control means receives product information from the new device and stores the information in the memory.
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64. The apparatus of claim 52, further comprising a display means for displaying the updated home network list through a display.

65. A configuration method for configuring a new device in a home network
25   system, comprising the steps of:

        receiving a plugged-in request message from the new device;

setting a logical address for the new device from the previously-stored logical addresses; and

transmitting an address change request message containing the logical address to the new device.

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66. The method of claim 65, further comprising a step for updating a previously-stored home network list by registering the new device.

67. The method of claim 66, which performs the updating step after a step

10   for receiving an address change ACK response message from the new device.

68. The method of claim 65, wherein the plugged-in request message comprises at least a product code and a logical address of the new device.

15   69. The method of claim 68, further comprising a step for deciding whether the logical address of the new device is an initial logical address, and performing the succeeding procedure of the step for receiving the plugged-in request message when the logical address of the new device is identical to the initial logical address.

20   70. The method of claim 65 or 68, further comprising the steps of:

when a plurality of plugged-in request messages are inputted within a predetermined time, deciding whether the messages are inputted from the same product devices;

when the messages are inputted from the same product devices,

25   transmitting join request messages containing the initial addresses and temporary logical address ranges of the logical addresses according to the product codes

previously stored in the memory to the new devices;

receiving join ACK request messages from the new devices; or

when the messages are inputted from different kinds of devices, transmitting the join request messages containing the initial addresses and the temporary logical address ranges of the logical addresses according to the product codes previously stored in the memory respectively to the same product devices; and

receiving the join ACK response messages from the same product devices.

71. The method of claim 70, wherein the join ACK response message comprises the temporary logical address having an arbitrary value within the temporary logical address range selected by the new device.

72. The method of claim 71, wherein the address change request message comprises the temporary logical address and the set logical address.

73. The method of claim 71, further comprising the steps of:

deciding whether the temporary logical addresses contained in the join ACK response messages are identical;

re-transmitting join request messages containing new temporary logical address ranges to the new devices transmitting the same temporary logical addresses; and

transmitting address change request messages containing new logical addresses to the other new devices.

74. The method of claim 73, wherein the new temporary logical addresses

are not identical to the new logical addresses set in the other new devices.

75. The method of claim 65, further comprising a step for receiving product information from the new device and storing the information in the memory.

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76. The method of claim 65, further comprising a step for displaying the updated home network list through a display.

77. A program storage medium for storing a computer-readable program

10 which is provided to a home network system in which a new device is configured, and which comprises the steps of:

receiving a plugged-in request message from the new device;

setting a logical address for the new device from the previously-stored logical addresses; and

15 transmitting an address change request message containing the logical address to the new device.

78. The medium of claim 77, wherein the program further comprises a step for updating a previously-stored home network list by registering the new device.

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79. The medium of claim 78, wherein the program performs the updating step after a step for receiving an address change ACK response message from the new device.

25 80. The medium of claim 78, wherein the plugged-in request message comprises at least a product code and a logical address of the new device.

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81. The medium of claim 80, wherein the program further comprises a step for deciding whether the logical address of the new device is an initial logical address, and performs the succeeding procedure of the step for receiving the

5   plugged-in request message when the logical address of the new device is identical to the initial logical address.

82. The medium of claim 77 or 80, wherein the program further comprises the steps of:

10   when a plurality of plugged-in request messages are inputted within a predetermined time, deciding whether the messages are inputted from the same product devices;

when the messages are inputted from the same product devices, transmitting join request messages containing the initial addresses and temporary

15   logical address ranges of the logical addresses according to the product codes previously stored in the memory to the new devices;

receiving join ACK request messages from the new devices; or

when the messages are inputted from the different kinds of devices, transmitting the join request messages containing the initial addresses and the

20   temporary logical address ranges of the logical addresses according to the product codes previously stored in the memory respectively to the same product devices; and

receiving the join ACK response messages from the same product devices.

25   83. The medium of claim 82, wherein the join ACK response message comprises a temporary logical address having an arbitrary value within the

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temporary logical address range selected by the new device.

84. The medium of claim 83, wherein the address change request message comprises the temporary logical address and the set logical address.

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85. The medium of claim 83, wherein the program further comprises the steps of:

deciding whether the temporary logical addresses contained in the join ACK response messages are identical;

10   re-transmitting join request messages containing new temporary logical address ranges to the new devices transmitting the same temporary logical addresses; and

transmitting address change request messages containing new logical addresses to the other new devices.

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86. The medium of claim 85, wherein the new temporary logical addresses are not identical to the new logical addresses set in the other new devices.

87. The medium of claim 77, further comprising a step for receiving product

20   information from the new device and storing the information in the memory.

88. The medium of claim 77, further comprising a step for displaying the updated home network list through a display.